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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/685,407  
Filing Date: October 16, 2003  
Appellant(s): YOOK, HYUNGYOO

David P. Emery (Reg. No. 55,154)  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed on June 21, 2010 appealing from the Office action mailed on November 2, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The Examiner agrees with the statement of the status of claims contained in the brief.

**(4) Status of Amendments After Final**

The Examiner agrees with the statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The Examiner agrees with the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The Examiner agrees with the statement of the grounds of rejection to be reviewed set forth in the brief.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

02/09350	MOONEN et al.	1-2002
2002/0073244	DAVIES et al.	6-2002
7,058,719	MOTOYAMA	6-2006

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. **Claims 9, 10, 12-14, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0073244 (hereinafter “**Davies**”) in view of WO 02/09350 (hereinafter “**Moonen**”).

As per **Claim 9**, Davies discloses:

- a framework capable of providing integrated support to a variety of home network middleware is loaded on the application server (*see Paragraph [0035], “The HAVi stack 426 includes a device manager. As the FAV finds new devices coupled to the HAVi network 400, the device manager creates a device control module for each new device. These device control modules (DCMs) 424 are instantiated for all the devices on the HAVi network 400. The DCMs*

*424 allow the HAVi network 400 to interface with each HAVi compliant device and IP device DCMs 422 allow the HAVi network 400 to interface with each IP device.”); and*

*- one of the plurality of controlled devices controls the application server and performs installation and management of applications for the plurality of controlled devices (see Paragraph [0028], “In FIG. 2, a block diagram of one embodiment of an IP device 230 integrated into a HAVi network 200 is shown. The HAVi network 200 includes an IP and HAVi compliant device, i.e., an FAV, acting as a controller 210. The controller 210 runs a server 212 and includes HAVi software and APIs 214.”; Paragraph [0029], “In an alternative embodiment, an IP device may control the FAV or IAV device as well as other HAVi compliant devices coupled to a HAVi network.”; Paragraph [0035], “The HAVi stack 426 includes a device manager. As the FAV finds new devices coupled to the HAVi network 400, the device manager creates a device control module for each new device. These device control modules (DCMs) 424 are instantiated for all the devices on the HAVi network 400. The DCMs 424 allow the HAVi network 400 to interface with each HAVi compliant device and IP device DCMs 422 allow the HAVi network 400 to interface with each IP device.”),*

*- wherein the one of the plurality of controlled devices controls the plurality of controlled devices in response to the installed applications (see Paragraph [0029], “In an alternative embodiment, an IP device may control the FAV or IAV device as well as other HAVi compliant devices coupled to a HAVi network.”; Paragraph [0030], “The IP DCM is a logical representation of the IP device 230 that provides an API used to send control commands to the IP device 230 by the server 212 on the controller 210.”),*

- wherein each of the plurality of controlled devices includes a home network middleware module for communicating with the application server (*see Paragraph [0030], "The IP device 230 has IP and HAVi APIs 232 that provide API support to translate and relay calls between the server 212 and the IP device 230. The HAVi compliant devices 220 communicate with the server 210 by using HAVi APIs 222 and communicating via a communication medium such as the IEEE 1394 network."*).

However, Davies does not disclose:

- wherein each of the plurality of controlled devices includes an application management module for installing a new application or managing an already installed application by controlling the application server.

Moonen discloses:

- an application management module for installing a new application or managing an already installed application by controlling an application server (*see Figure 1: 120, 122, and 128; Page 5: 26-28, "Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100."; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies' invention to include wherein each of the plurality of controlled devices includes an application management module for installing a new application or managing an already installed application by controlling the application server. The modification would be obvious because one of ordinary skill in the art would be motivated to automate the installations of application files downloaded from a central server to the controlled devices without requiring a user having to manually perform the installations.

As per **Claim 10**, the rejection of **Claim 9** is incorporated; and Davies further discloses:

- wherein the variety of home network middleware is selected from a group consisting of HAVi and HWW (see Paragraph [0021], *"The system includes a HAVi network with a plurality of devices connected to the HAVi network via a IEEE 1394 bus. A number of internet protocol devices are communicating and operating with the HAVi network via an IP protocol."*).

As per **Claim 12**, the rejection of **Claim 9** is incorporated; however, Davies does not disclose:

- wherein an application file is stored in a file server on the Internet.

Moonen discloses:

- wherein an application file is stored in a file server on the Internet (see Page 2: 30-33, *"... the inventors propose a solution wherein a bridge is connected to a server, e.g., on the*

*Internet. This server offers a lookup service for some set of standards, and allows a bridge to locate and download the appropriate translation modules for use in the home network.”).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies' invention to include wherein an application file is stored in a file server on the Internet. The modification would be obvious because one of ordinary skill in the art would be motivated to automate the downloading of application files from a central server to the controlled devices without requiring a user having to manually locate the application files.

As per **Claim 13**, the rejection of **Claim 12** is incorporated; and Davies further discloses:

- wherein the application server includes a home network middleware module for communicating with the plurality of controlled devices (*see Paragraph [0028], “The controller 210 runs a server 212 and includes HAVi software and APIs 214.”*).

However, Davies does not disclose:

- wherein the application server includes an application loader module for downloading the application file from the file server under the control of the one of the plurality of controlled devices, and an application platform service module for controlling operations of the home network middleware module and the application loader module under the control of the one of the plurality of controlled devices.

Moonen discloses:

- an application loader module for downloading an application file from a file server, and an application platform service module for controlling operations of a home network



middleware module and the application loader module (see Figure 1: 120, 122, and 128; Page 5: 26-28, "Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100."; Page 10: 3-7, "A next step 304 involves listening and reacting on the UPnP device announcement message. In step 306, the device description document of printer 206 is retrieved from the URL embodied in the announcement message, and the document is sent to bridge server 222 using HTTP POST. ").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies' invention to include wherein the application server includes an application loader module for downloading the application file from the file server under the control of the one of the plurality of controlled devices, and an application platform service module for controlling operations of the home network middleware module and the application loader module under the control of the one of the plurality of controlled devices. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize a main controlling device to automate the downloading of application files from a central server to the controlled devices without requiring a user having to manually locate the application files.

As per **Claim 14**, the rejection of **Claim 13** is incorporated; however, Davies does not disclose:

- wherein the home network middleware module and the application loader module of the application server are bundled into the framework.

Moonen discloses:

- wherein a home network middleware module and an application loader module of an application server are bundled into a framework (see Figure 1: 118, 120, and 122; Page 5: 24-28, "... bridge 118 detects B-device 116 as a new addition, either because bridge 118 scans B-cluster 110 or its registry/directory/look-up service (not shown) periodically or because B-cluster 110 actively notifies bridge 118. Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100." and 34 to Page 6: 1-4, "Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 downloads onto bridge 118."; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies' invention to include wherein the home network middleware module and the application loader module of the application server are bundled into the framework. The modification would

be obvious because one of ordinary skill in the art would be motivated to automate the downloading of application files from a central server framework to the controlled devices.

As per **Claim 16**, the rejection of **Claim 9** is incorporated; however, Davies does not disclose:

- wherein the application management module determines a location where a new application file is downloaded and then requests the application server to install the new application file.

Moonen discloses:

- wherein an application management module determines a location where a new application file is downloaded and then requests an application server to install the new application file (*see Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Moonen into the teaching of Davies to modify Davies' invention to include wherein the application management module determines a location where a new application file is downloaded and then requests the application server to install the new application file. The modification would be obvious because one of ordinary skill in the art

would be motivated to automate the downloading and installations of application files from a central server to the controlled devices without requiring a user having to manually locate the application files and perform the installations.

2. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Davies** in view of **Moonen** as applied to Claim 9 above, and further in view of **US 7,058,719 (hereinafter "Motoyama")**.

As per **Claim 11**, the rejection of **Claim 9** is incorporated; however, Davies and Moonen do not disclose:

- wherein the framework is an OSGi framework.

Motoyama discloses:

- wherein a framework is an OSGi framework (*see Column 1: 31-37, "With such a large number of sophisticated electronic devices in our home and workplace, there has been recognized a need to manage such equipment. For example, the Open Services Gateway Initiative (OSGI) is an industry initiative to provide the technology to allow management of localized electronics equipment by use of an external service provider."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Motoyama into the teaching of Davies to modify Davies' invention to include wherein the framework is an OSGi framework. The modification would be obvious because one of ordinary skill in the art would be motivated to

allow management of localized electronics equipment by use of an external service provider (*see Motoyama – Column 1: 31-37*).

#### **(10) Response to Argument**

(1) Claims 9, 10, 12-14 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Davies (US 2002/0073244) and Moonen (WO 02/09350).

##### ***In the Appeal Brief, Appellant argues:***

a) In other words, this installation manager is located on a bridge 118, which hosts translation modules for communicating between each of the plurality of devices. *See* Moonen FIG. 1. In this regard, the installation manager 122 handles the installations of software components needed to integrate a new device (device B 116) into the system 100 when new device B 116 is added. Consequently, Moonen itself includes a plurality of controlled devices, yet fails to disclose including the installation manager 122 on multiple devices. **Accordingly, the Examiner's supporting rationale to combine contrasts with the exact reference relied on for the modification.** While the Examiner contends it would be obvious to utilize the installation manager 122 of Moonen on each controlled device of a plurality of controlled devices, Moonen, which also shows a plurality of controlled devices fails to disclose, teach or suggest any such configuration.

Thus, as there is no reason to include the installation manager 122 on a controlled device, let alone each controlled device, the Examiner's rationale to combine fails. Therefore, the Examiner has failed to establish *prima facie* obviousness for at least this reason.

Accordingly, Appellant continues to submit the Examiner has failed to establish *prima facie* obviousness. Specifically, while Davies may disclose a controlled device containing various software modules, this in no way provides a reason to include all software modules on the controlled device. Rather, the particular function of the particular software module must be taken into consideration.

*(See Appeal Brief – page 10 to page 11, emphasis in original.)*

***Examiner's response:***

a) Examiner disagrees. With respect to the Appellant's assertion that the combination of Davies and Moonen fails to disclose each of a plurality of controlled devices includes an application management module, as previously pointed out in the Non-Final Rejection (mailed on 04/02/2009), the Final Rejection (mailed on 11/02/2009), and the Advisory Action (mailed on 02/18/2010) and further clarified hereinafter, the Examiner respectfully submits that Davies teaches one of a plurality of controlled devices controlling an application server and each of the plurality of controlled devices including a home network middleware module for communicating with the application server (*see Paragraph [0028], "In FIG. 2, a block diagram of one embodiment of an IP device 230 integrated into a HAVi network 200 is shown. The HAVi network 200 includes an IP and HAVi compliant device, i.e., an FAV, acting as a controller 210. The controller 210 runs a server 212 and includes HAVi software and APIs 214."*; Paragraph

[0029], *“In an alternative embodiment, an IP device may control the FAV or IAV device [application server] as well as other HAVi compliant devices coupled to a HAVi network (emphasis added).”*; Paragraph [0035], *“The HAVi stack 426 includes a device manager. As the FAV finds new devices coupled to the HAVi network 400, the device manager creates a device control module [home network middleware module] for each new device. These device control modules (DCMs) 424 are instantiated for all the devices on the HAVi network 400. The DCMs 424 allow the HAVi network 400 to interface with each HAVi compliant device and IP device DCMs 422 allow the HAVi network 400 to interface with each IP device.”*). Note that a HAVi network has many IP devices connected to it and that an IP device (each of the plurality of controlled devices) may control the FAV or IAV device (application server). Thus, one of ordinary skill in the art would readily recognize that the IP device is acting as a controlling device. However, Davies does not teach each of the plurality of controlled devices includes an application management module. Moonen teaches an installation manager (application management module) included in a bridge, which, as acknowledged by the Appellant, is a controlling device that handles the installations of software components needed to integrate a new device into a cluster of devices. Therefore, in view of the teaching of Moonen, one of ordinary skill in the art would be motivated to include an application management module in the IP device of Davies acting as a controlling device in order to automate the installations of application files downloaded from a central server to the controlled devices without requiring a user having to manually perform the installations.

Therefore, for at least the reason set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 9 is proper and therefore, maintained.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's answer.



Art Unit: 2191

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Qing Chen

/Q. C./

Examiner, Art Unit 2191

Conferees:

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